

REMARKS

This paper is filed in response to the Office Action mailed on September 19, 2007.

Response to Double Patenting Rejection

Claims 9-12, 15-16, 21-28, 25-27 and 41-60 were rejected under a non-statutory double patenting rejection, specifically U.S. Patent No. 6,704,428. Applicant does not admit that the claims are obvious in view of U.S. Patent No. 6,704,428. However, a Terminal Disclaimer in compliance with 37 C.F.R. 1.321(b)(iv) is enclosed herewith to obviate these rejections.

Response to §102 Rejections

Claims 9-10, 12, 15, 35-36, 41-42, 46, 56-58 and 60 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Jones (U.S. Patent No. 6,118,878). In response, applicant submits respectfully that one of skill would not regard Jones as identically satisfying each and every requirement of the claims.

For example, claims 9, 10, and 12 require “means for sensing acoustic energy based on user movement” and “means, responsive to a perceived absence of the acoustic energy, for switching the apparatus from the on state to the off or standby state.

In contrast, Jones reports 1) sensing pressure of an earcup against a user’s head, 2) sensing a noise level outside the earcup, 3) sensing presence of an audible drone or squeal within the earpiece, or 4) sensing changes in a circuit-generated subsonic signal introduced via a speaker into the earcup. To confirm, please see, for example, column 12, lines 33-45; column 13, lines 50-67; column 15, lines 12-13; column 16, lines 27-45; column 19, lines 18-27; column 20, lines 12-17; and column 5, lines 7-67.

Applicant found nothing in Jones that one of skill in the art would equate identically with sensing acoustic energy based on user movement and then using the perceived absence of this acoustic energy to switch from an on state to an off or standby state. The Action respectively cites col. 16, lines 41-45 and col. 17, lines 13-15 as being identical to “means for sensing acoustic energy based on user movement” and “means responsive to a perceived absence of the acoustic energy [based on user movement], for switching between operating states.” However, applicant submits respectfully that these passages state:

Col. 16, Lines 41-45

40 **earpiece 1. However, the subsonic acoustic signal, generated within earpiece 1, is detected by microphone 28. The level of the subsonic acoustic signal detected by microphone 28 is dependent upon the acoustic properties of the earpiece 1, which are affected by the pressure between earpiece 1 and**
45 **the user's head.**

Col. 17, Lines 13-15

Alternatively, the output of level detecting circuit 1069 may vary the frequency response of the cancellation system according to the pressure exerted on earpiece 1. Similarly, the output of level detector 1069 may be used to determine when headset 100 has been removed from the user's head.

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Taken with in full and in context, one of skill would recognize that the output of level detector 1069 detects the level of a subsonic signal produced by subsonic signal generator 22 and then picked up by a separate microphone 28. Indeed, Figure 10 shows that the filtered output of microphone 28 feeds level detector 1069, which ultimately indicates "when the pressure of earpiece 1 against the user's head falls below a threshold." (Col. 16, lines 7-8; also, col. 16, lines 26-45.) Thus, one of skill would not recognize the level detector as being responsive to a perceived absence of acoustic energy based on user movements, when its stated purpose is to indicate pressure of the earcup against the head of the user.

Moreover, if one considers a scenario with a dead user, one can appreciate that Jones' reliance on earpiece pressure as determined using a subsonic signal generator would not only not indicate absence of acoustic energy based on user movements, but would not switch Jones's headset to an off or standby state. Indeed, Jones would continue to operate independent of the lack of user movement.

Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the §102 rejection of claims 9, 10, 12.

Claim 15 also distinguishes from Jones. Specifically, claim 15 requires sensing a condition based on user jaw movements or blood movements with a user's head and turning the apparatus off after a perceived absence of the condition. As noted, Jones will continue operate even with a dead user, because it senses earpiece pressure against the head of user, not user movement.

Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the §102 rejection of claims 9, 10, 12.

Claims 41, 42, and 46 now include means language. Specifically, claims 41 and 42 now require “means, including a programmable timer and a switch, responsive to the received signal, for switching the ANR circuitry from an active operating state to an inactive operating state.”

Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the §102 rejection of claims 41, 42, and 46.

Claims 56-58 and 60 also distinguish from Jones. Specifically, these claims require “automatically determining whether acoustic signals produced by a user of the ANR circuitry are present within a cavity associated with the circuitry” and “automatically turning off the ANR circuitry in response to determining that the acoustic signals produced by the user are no longer present.” In contrast, Jones teaches nothing about detecting or responding acoustic signals produced by a user. Again, it’s noteworthy that the Jones would continue to operate even if a user died while wearing its headset. As such, one of skill would recognize that it operates independently of any acoustic signals produced by the user.

Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the §102 rejection of claims 56-58 and 60.

Response to §103 Rejections

Claims 16, 21-28, 43, 47-48, 50-51, 53, 55 and 59 were rejected under 35 U.S.C. §103(a) as being unpatentable over Jones (U.S. Patent No. 6,118,878) in view of Lucey (U.S. Patent No. 5,396,551). Claim 37 was rejected similarly over Jones in view of Lucey in further view of Filliman (U.S. Patent No. 4,045,748). Claim 44 was rejected likewise over Jones in view of Cannelli (U.S. Patent No. 5,072,415). Claim 45 was rejected similarly over Jones in view of Filliman in further view of Cabot (U.S. Patent No. 5,089,981). Claim 52 was rejected similarly over Jones in view of Lucey and Cannelli. Claim 49 was rejected similarly Jones in view of Lucey, Cannelli, Filliman, and Cabot. Claim 54 was rejected over Jones in view of Lucey and Cabot.

In response, applicant submits respectfully that the proposed combinations even if permissible do not overcome the basic deficiencies of Jones, particularly as they relate to user-based acoustic energy. Moreover, for those claims which require specific timer means, applicant

notes respectfully that one of skill would not recognize a need for additional or alternative timer in Jones, since it relies on change in earpiece pressure. Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the 103 rejections.

New Claims 61 and 62

New claims 61 and 62 are believed to be distinguish over the art of record based at least on the requirement of "in response to sensing the electrical signal, resetting a digital timer" and "in response to the digital timer measuring a predetermined amount of time without resetting, automatically turning off the ANR circuitry."

Accordingly, applicant requests respectfully that the Examiner reconsider and withdraw the 103 rejections.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9593 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

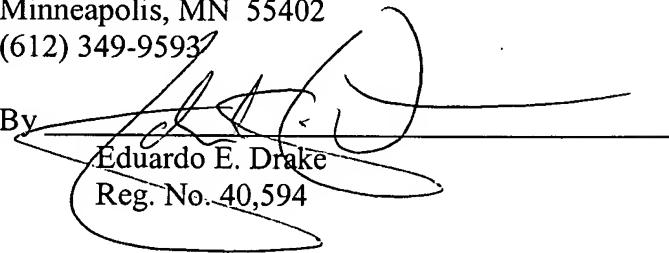
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AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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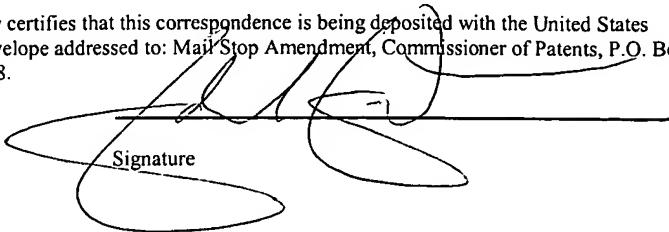
Title: AUTOMATIC TURN-ON AND TURN-OFF CONTROL FOR BATTERY-POWERED HEADSETS

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 19th day of March 2008.

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